

## Selection of a high yielding soybean variety, Binasoybean-2 from collected germplasm

### ABSTRACT

More than two hundred soybean germplasm collected from local and exotic sources were put into evaluation to select desirable ones for directly use as varieties or for future usage as breeding materials. Through observation trials thirteen germplasm were selected considering their better agronomic performance. Selected germplasm were evaluated through different trials at soybean growing areas of Bangladesh during 2007 to 2010. The germplasm, BAU-S/109 produced significantly higher seed yield than control varieties Sohag and BARIsoybean-5 in most of the trials. Over three years trial, BAU-S/109 produced mean seed yield of 2711 kg ha<sup>-1</sup> while Sohag and BARIsoybean-5 produced 2224 and 2227 kg ha<sup>-1</sup> seed yield, respectively. BAU-S/109 also produced the higher number of branches and pods plant<sup>-1</sup> along with higher 100-seed weight. Results of yield trials indicated that BAU-S/109 was suitable for cultivation in Bangladesh. BAU-S/80 was found to be moderately tolerant to soybean yellow mosaic virus and also showed lower insect infestation than control varieties. On the basis of better performance, Bangladesh Institute of Nuclear Agriculture (BINA) applied for registration of BAU-S/109 to the National Seed Board (NSB) of Bangladesh. Consequently, the NSB of Bangladesh registered BAU-S/109 as an improved soybean variety in 2011 as Binasoybean-2 for commercial cultivation.

**Keyword:** Binasoybean-2; Soybean germplasm; High yielding